

The lichen genera *Japewia* and *Japewiella* in Australia

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Introduction

The genus *Japewia* was introduced by Tønsberg (1990) to accommodate three corticolous crustose taxa from the cool temperate Northern Hemisphere, characterised principally by their biatorine apothecia and unusually thick-walled, simple ascospores. Other salient features included eight-spored asci with a conspicuous masse axiale (\pm pertaining to the *Lecidella*-type of Hafellner 1984), the hamathecium and excipulum both comprised of highly similar, branched and anastomosing, gelatinised hyphae, and capitate, brown-pigmented paraphysis tips (Printzen 1999). As pointed out by Printzen (1999), *Japewia* as thus defined, and with only three constituent species, was already heterogeneous, because one species, *J. carrollii* (Coppins & P.James) Tønsberg, had a well-developed excipulum unlike that of *J. tornensis* (Nyl.) Tønsberg (the type species) and *J. subaurifera* Muhr & Tønsberg. Consequently (*loc. cit.*), he introduced the genus *Japewiella* to accommodate not only *J. carrollii* but also two additional species from more temperate to subtropical latitudes.

Neither genus has been recorded for Australasia, but as is so often the case, this is more a result of lack of knowledge and collections, than a true reflection of biogeographical patterns. Ongoing study of crustose lichens in Tasmania has revealed that both genera are indeed present there. These findings are reported below.

Material and Methods

The study is based on specimens housed in the Tasmanian Herbarium (HO), and comparative reference material in the Natural History Museum (BM).

Descriptions are based on hand-cut sections of the thallus and ascomata, mounted in water, 15% KOH, Lugols Iodine and Lactophenol Cotton Blue, and examined with high-power, light microscopy. Dimensions of asci and ascospores are based on 25 and 50 observations respectively. The latter are presented in the format: smallest measurement–mean–largest measurement; single outlying values are given in parentheses. Chemical analyses using thin-layer chromatography follow standard methods (Orange *et al.* 2001) and comparison with a range of reliable reference specimens. High-performance liquid chromatography (Elix

Abstract

The genera *Japewia* and *Japewiella* (lichenised Ascomycetes) are recorded for Australia for the first time, based on collections from Tasmania. The species *Japewia subaurifera* Muhr & Tønsberg and *Japewiella pruinosula* (Müll.Arg.) Kantvilas *comb. nov.* are described and discussed. The latter is also known from New South Wales and Victoria.

Keywords: lichenised Ascomycota, Tasmania.

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